

APPENDIX 2: GEOMORPHOLOGY SOIL PROFILE DESCRIPTIONS

SOIL PROFILE DESCRIPTIONS

31WA1137

Soil/Sediment Profile @ 8.0 m

Described 5/11/98 by David S. Leigh

Profile @ 8.0 m northeast of the modern levee crest at 31WA1137:

Depth	Horizon	Description
0–102	A/C	10YR 4/4 and 2.5Y 7/2 sandy silt loam, faintly laminated and stratified here, but distinctly laminated and stratified to the southwest. Strata include 2.5Y 7/2 sands interbedded with sandy silt loam.
102–185Bgb		7.5YR 4/4 silty clay loam with common medium 2.5Y 6/2 and 7/2 mottles, moderate medium subangular blocky, clear boundary.
185–290BCgb		2.5Y 5/4 silty clay loam mottled with many medium 2.5Y 2/1, 10YR 5/8, and 2.5Y 7/2 mottles, augered boundary.
290–420C1gb		5Y 5/1 silty clay loam to silty clay, massive, augered boundary.
420–460C2gb		5Y 5/1 sandy loam, massive, contains fragments of wood and few bits of gravel, augered boundary.
460+	C3gb	Coarse gravel, no recovery.

31WA1137**Soil/Sediment Profile @ 18.0 m**

Described 5/11/98 by David S. Leigh

Profile @ 18.0 m northeast of the modern levee crest and about 12 m southwest of the crest of paleo-levee at 31WA1137:

Depth	Horizon	Description
0–29	C	Historical 10YR 5/4 loam, weak coarse subangular blocky to massive, clear boundary.
29–52	Ab	10YR 4/2 fine sandy loam, moderate medium subangular blocky, clear boundary.
52–95	Bwb	10YR 4/4 fine sandy loam, moderate medium subangular blocky, gradual boundary.
95–153	C1b & Btb	10YR 5/4 loamy sand to sand, contains many 1–3-cm-thick 10YR 5/8 clay-iron bands, clear boundary.
153–200C2b		10YR 4/5 and 10YR 5/4 loam, strong medium subangular blocky, base of trench, clear boundary.
200–260C3b		2.5Y 5/4 and 5Y 7/2 sandy loam with very large 10YR 5/8 mottles, augered boundary.
260–305C4b		2.5Y 6/3 sand, massive, clear boundary felt with auger.
305–385C5b		2.5Y 6/4 loam with moderate medium 10YR 5/8 mottles, moderate medium subangular blocky, base of hole.

31WA1137**Soil/Sediment Profile @ 30.25 m**

Described 5/11/98 by David S. Leigh

Profile @ 30.25 m northeast of the modern levee crest and on top of the crest of paleo-levee at 31WA1137:

Depth	Horizon	Description
0–5	A	10YR 3/2 silt loam, strong medium subangular blocky, abrupt boundary.
5–17	C	10YR 5/4 loam, massive, abrupt boundary.
17–34	Ab	10YR 4/2 fine sandy loam, weak fine subangular blocky to massive, clear boundary
34–53	E1b	10YR 5/4 fine sandy loam, weak fine subangular blocky, gradual boundary.
53–69	E2b	10YR 5/4 fine sandy loam, weak fine subangular blocky, few faint 10YR 5/6 clay-iron bands, clear boundary.
69–115	Bt1b	10YR 4/5 fine sandy loam with common medium 2.5Y 6/2 redox features, strong medium subangular blocky, moderately thick clay films on ped faces, gradual boundary.
115–230	Bt2b	10YR 5/6 fine sandy loam with common medium 2.5Y 6/2 redox features, strong medium subangular blocky, moderately thick clay films on ped faces and in clay bridges 7.5YR 5/2 silt cap on large prismatic peds, few crayfish krotivina, diffuse boundary.
230–380	C1gb	2.5Y 6/3 sandy loam common medium and large 10YR 5/6 mottles, weak coarse subangular blocky, gradual boundary.
380–500	C2gb	2.5Y 7/2 loam to silty clay loam with common medium and large 10YR 5/6 mottles, moderate medium subangular blocky, augered boundary.
500–545	C3gb	5Y 7/1 loam with few very large 7.5YR 5/8 mottles, massive, augered boundary.
545–585	C4gb	5Y 7/1 sandy loam, massive, contains uncarbonized organic fragments including a hickory nut, clear boundary felt with auger.
585+	C5gb	Coarse gravel, no recovery with 3-inch auger, base of hole.